

Appl. No : 09/438,030  
Filed : November 10, 1999

IN THE CLAIMS

1-2 (Canceled)

3. (Previously amended) A method for the evacuation of an occlusive substance from the wall of a blood vessel, comprising:

positioning a distal end of a guidewire proximal to at least a portion of the occlusive substance on the wall of said blood vessel;

introducing an aspiration catheter over said guidewire;

aspirating through the aspiration catheter while crossing the site of the occlusive substance with both the distal end of the guidewire and a distal end of the aspiration catheter;

removing the aspiration catheter from the blood vessel; and

advancing a therapy catheter into the blood vessel to treat the occlusive substance after removing the aspiration catheter.

4. (Original) The method of Claim 3, further comprising moving the distal end of the aspiration catheter in a distal to proximal direction following delivery of the guidewire across the site of the occlusive substance.

5. (Original) The method of Claim 4, further comprising aspirating while moving the distal end of the aspiration catheter in a distal to proximal direction.

6. (Original) The method of Claim 5, further comprising repeating said crossing while aspirating in both a proximal to distal and in a distal to proximal direction.

7. (Previously amended) The method of Claim 3, wherein said occlusive substance includes an embolus.

8. (Original) The method of Claim 3, wherein said guidewire includes an occlusive device at its distal end.

9. (Original) The method of Claim 8, wherein said occlusive device is a balloon.

10. (Original) The method of Claim 8, further comprising activating said occlusive device to prevent particle migration past said occlusive device.

11. (Previously amended) The method of Claim 10, further comprising delivering a therapy catheter to perform therapy on said occlusive substance following activation of said occlusive device.

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12. (Original) The method of Claim 11, wherein said therapy catheter is selected from the group consisting of an angioplasty balloon catheter, a stent delivery catheter and an atherectomy catheter.

13. (Original) The method of Claim 3, wherein said blood vessel is a saphenous vein graft.

14. (Original) A method for treatment of an occlusion in a totally occluded blood vessel or partially occluded blood vessel defined by thrombolysis in myocardial infarction (TIMI) flow of 0-1, comprising:

delivering a guidewire until its distal end is proximal to the occlusion;

delivering an aspiration catheter until a distal end of the aspiration catheter is proximal the occlusion;

simultaneously crossing the site of the occlusion in a proximal to distal direction with said distal end of the guidewire and the distal end of the aspiration catheter while aspirating;

moving the distal end of the aspiration catheter back across the site of the occlusion in a distal to proximal direction while aspirating;

exchanging said guidewire for a guidewire having an occlusive device at its distal end; and

positioning the occlusive device at a site distal to the occlusion, and activating said occlusive device.

15. (Original) The method of Claim 14, further comprising inserting a therapy catheter to perform therapy on said occlusion.

16. (Original) The method of Claim 15, further comprising introducing said aspiration catheter to remove debris generated during said therapy.

17. (Original) The method of Claim 14, wherein said blood vessel is a saphenous vein graft.

18. (Previously amended) The method of Claim 14, wherein said occlusion includes an embolus.

19. (Original) The method of Claim 14, wherein said occlusive device is a balloon.

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20. (Original) The method of Claim 14, further comprising repeating at least once said crossing while aspirating and moving said aspiration catheter in a distal to proximal direction.

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21. (Original) A method for treatment of an occlusion in a partially occluded blood vessel, comprising:

delivering a guidewire having an occlusive device at its distal end until the distal end is distal said occlusion;

delivering an aspiration catheter until its distal end is proximal to the occlusion;

activating said occlusive device; and

crossing the site of the occlusion with the distal end of the aspiration catheter while aspirating.

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22. (Original) The method of Claim 21, further comprising moving the distal end of the aspiration catheter in a distal to proximal direction across the occlusion while aspirating.

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23. (Original) The method of Claim 21, further comprising inserting a therapy catheter to perform therapy on said occlusion following activation of the occlusive device.

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24. (Original) The method of Claim 23, further comprising removing the aspiration catheter prior to inserting the therapy catheter.

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25. (Previously amended) The method of Claim 24, further comprising introducing said aspiration catheter after performing therapy to remove debris generated during said therapy.

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26. (Original) The method of Claim 24, wherein said blood vessel is a saphenous vein graft.

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27. (Previously amended) The method of Claim 24, wherein said occlusion includes an embolus.

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28. (Original) The method of Claim 24, wherein said occlusive device is a balloon.

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29. (Original) The method of Claim 24, further comprising repeating at least once said crossing while aspirating and moving said aspiration catheter in a distal to proximal direction.

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30. (Original) The method of Claim 28, wherein said therapy catheter is selected from the group consisting of an atherectomy catheter, stent and balloon catheter.

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31. (Previously added) The method of Claim 3, further comprising exchanging the guidewire for a guidewire having an occlusive device at its distal end.

32. (Previously added) The method of Claim 31, wherein said exchange occurs prior to removal of the aspiration catheter.

33. (Previously added) The method of Claim 32, wherein said exchange occurs after removal of the aspiration catheter.

34. (Previously added) A method for treating an occlusive substance from the wall of a blood vessel, comprising:

positioning a distal end of a guidewire having an occlusive device at its distal end proximal to at least a portion of the occlusive substance on the wall of said blood vessel;

introducing an aspiration catheter over said guidewire;

prior to treating the occlusive substance, aspirating through the aspiration catheter while crossing the site of the occlusive substance with both the distal end of the guidewire and a distal end of the aspiration catheter; and

treating the occlusive substance.

35. (Previously added) The method of Claim 34, wherein said occlusive device is a balloon.

36. (Previously added) The method of Claim 34, further comprising activating said occlusive device to prevent particle migration past said occlusive device prior to said treatment.

37. (Previously amended) The method of Claim 36, further comprising delivering a therapy catheter to perform therapy on said occlusive substance following activation of said occlusive device.

38. (Previously added) The method of Claim 37, wherein said therapy catheter is selected from the group consisting of an angioplasty balloon catheter, a stent delivery catheter and an atherectomy catheter.

39. (Previously added) The method of Claim 37, further comprising removing the aspiration catheter from the blood vessel prior to delivering the therapy catheter.

40-46 (Canceled)

47. (Previously added) A method for treatment of an occlusion in a blood vessel, comprising:

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delivering a guidewire having a distal end until the distal end is distal of said occlusion;

delivering an aspiration catheter until its distal end is proximal to the occlusion;

crossing the site of the occlusion with the distal end of the aspiration catheter while aspirating, wherein the site of the occlusion is crossed with the distal end of the aspiration catheter in a proximal to distal direction while aspirating;

crossing the site of the occlusion with the distal end of the aspiration catheter in a distal to proximal direction while aspirating; and

repeating said crossing while aspirating in both a proximal to distal and in a distal to proximal direction.

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48. (Previously added) A method for treatment of an occlusion in a blood vessel, comprising:

delivering a guidewire having a distal end until the distal end is distal of said occlusion;

delivering an aspiration catheter until its distal end is proximal to the occlusion;

crossing the site of the occlusion with the distal end of the aspiration catheter while aspirating; and

exchanging the guidewire for a guidewire having an occlusive device on its distal

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49. (Previously added) The method of Claim 48, wherein said exchange occurs through said aspiration catheter.

50. (Currently amended) A method for treatment of an occlusion in a blood vessel, comprising:

delivering a guidewire having a distal end until the distal end is distal of said occlusion;

delivering an aspiration catheter until its distal end is proximal to the occlusion;

activating an occlusive device within said vessel to at least partially occlude blood flow; and

crossing the site of the occlusion with the distal end of the aspiration catheter while aspirating and while said occlusive device is activated.; and

removing said aspiration catheter and advancing a therapy catheter over said guidewire.

*42* 51. (Previously added) The method of Claim *50*, wherein the site of the occlusion is crossed with the distal end of the aspiration catheter in a proximal to distal direction while aspirating.

*43* 52. (Previously added) The method of Claim *51*, further comprising crossing the site of the occlusion with the distal end of the aspiration catheter in a distal to proximal direction while aspirating.

*44* 53. (Previously added) The method of Claim *52*, further comprising repeating said crossing while aspirating in both a proximal to distal and in a distal to proximal direction.

*45* 54. (Previously added) The method of Claim *50*, further comprising exchanging the guidewire for a guidewire having an occlusive device on its distal end.

*46* 55. (Previously added) The method of Claim *54*, wherein said exchange occurs through said aspiration catheter.

*47* 56. (Currently amended) The method of Claim *50*, wherein the guidewire includes said an occlusive device on its distal end, and said occlusive device is activated distal to said occlusion.

*48* 57. (Previously added) The method of Claim *21*, wherein said aspiration catheter is delivered before activating said occlusive device.

*49* 58. (New) The method of Claim *50*, wherein the guidewire is delivered until its distal end is distal of said occlusion prior to delivering the aspiration catheter until its distal end is proximal to the occlusion.